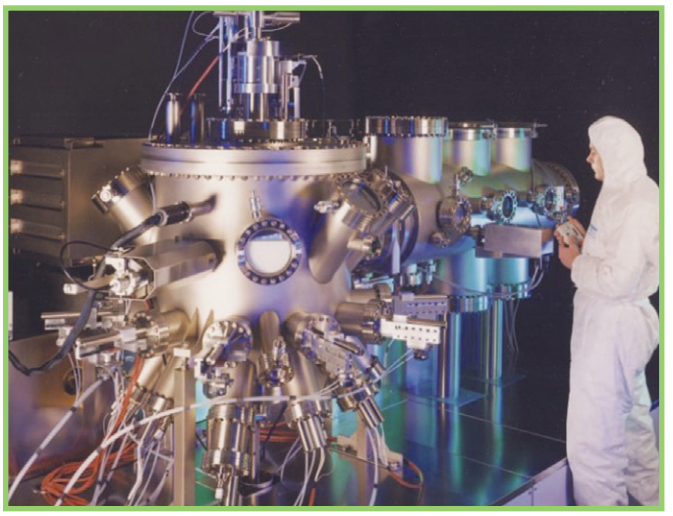
OIPT making moves in MBE



Northrop Grumman has added a V90 MBE system (above) to its line.

Oxford Instruments Plasma Technology (OIPT) has received two orders for MBE systems. OIPT's MBE equipment manufacturing division, formally VG Semicon, will supply Japan's Asahi Kasei with a V100 system, while Northrop Grumman adds a V90 to its existing line of V100 systems.

In other OIPT news, Jim Williams has been appointed GM of the former VG Semicon factory at East Grinstead, while retaining his responsibility as OIPT's sales director.

August Technology expands in Taiwan

August Technology Corp, supplier of inspection and metrology solutions, has announced the expansion of their Taiwan operations in Hsinchu.

The expanded facility will provide customers in Taiwan with local training, support services and demonstrations.

"Taiwan continues to be one of our most strategically important regions as it is home to some of the world's most prominent chip making companies, as well as being a gateway to China.

"Historically, August Technology has been very successful in this region, in fact, nearly 40% of our 2003 revenues came from customers based in Taiwan and the People's Republic of China," said CEO, Jeff O'Dell.

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AlGaN/GaN-on-Silicon from Picogiga

Picogiga International, a division of Soitec, has introduced a family of 2-, 3- and 4-inch, MBE grown AlGaN/GaN epiwafers, based on Si substrates.

"Picogiga is pursuing its strategy to supply high-performance epitaxial layers required for new generations of radio-frequency (RF) devices. This is a progressive step in our III-Vs material roadmap for high-power, high-speed applications," said Jean-Luc Ledys, Picogiga's newly appointed COO. "Today, most AlGaN/GaN HEMTs are offered on sapphire or silicon carbide (SiC) substrates, and these approaches are hampered by poor thermal conductivity, high procurement costs, and lack of availability for large-diameter wafers. Combining the performance benefits of GaN with the cost advantages of large-area silicon will help ensure broad commercial availability of GaN-based substrates."

Due to its low cost, high quality and ready supply, silicon is desirable as a substrate material, but it proves to be difficult as a base on which to grow compound semiconductor layers. Picogiga claims that its MBE deposition process overcomes such difficulties, enabling high-quality GaN on silicon growth.

Picogiga's process also confirms the viability of silicon as a platform for AlGaN-based devices, from the standpoint of epitaxy, device performance and thermal power handling. HEMT devices, based on this structure, exceed 6W/mm at 2 GHz, and can handle operating frequencies ranging from 5 to 10 GHz, with a transconductance (Gm) of 350 mS/mm, sustaining voltage up to 60-70 V. Such results make Picogiga's AlGaN/GaN product family suited for 3G base-station RF power amplifiers, as well as K-band radar applications.

MRP II Class A certification

Rohm and Haas Electronic Materials' Microelectronic Technologies business has achieved Manufacturing Resource Planning (MRP II) Class A certification for its Marlborough, Massachusetts site.

"Achieving MRP II Class A certification demonstrates Microelectronic Technologies' sustained commitment to the highest standards for operational excellence in the industry," said John Suydam, Rohm and Haas Electronic Materials, Microelectronic Technologies North American GM. "This enables us to better manage our business and fully leverage our recent investment in ERP Systems."

Jim Lekas, MRP II Program Director, commented: "Class A certification signifies that the business processes and performance standards for the Microelectronics Technology business have been critically examined by an independent firm and deemed to be consistent with world class practices."

Certification covers the strategic, tactical and operational areas of the business, with particular focus on demand forecasting, order processing, supply planning, manufacturing execution, warehouse and shipping management.